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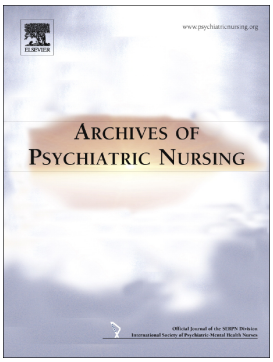

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Systematic Review of Therapeutic Leave in Inpatient Mental Health Services

Running head: Therapeutic leave: Systematic review

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Impact Statement:

- Managing therapeutic leave is a key role of mental health nurses in inpatient settings
- We have synthesised the relevant worldwide literature exploring assessment for, decisions about, and use of leave from multiple perspectives
- There is a dearth of literature on which to base 'best practice'.
- Given the recovery-oriented nature of this this practice, and the need for 'least restrictive' interventions, work is urgently required to provide a firmer evidence base.

Abstract

Aim: To identify, critically evaluate, and synthesise the empirical evidence about therapeutic leave from mental health inpatient settings.

Background: 'Leave' occurs when a mental health inpatient exits the hospital ward with the appropriate authorisation alone, or accompanied by staff, family, or friends. Limited research has previously addressed therapeutic as opposed to unauthorised leave, and the evidence-base has not been systematically evaluated.

Design: Systematic review methodology following relevant Preferred Reporting Items for Systematic Reviews and Meta-Analyses statement guidance.

Data Sources: Multiple electronic databases (CINAHL; Criminal Justice database; PsycARTICLES; Scopus; OpenGrey; Cochrane; GoogleScholar) for papers published from January 1967 to July 2017.

Review Methods: Information was extracted under the following headings: study, purpose/aims, sample, country, setting, design and data collection method(s), data collection instrument, and results. Papers were assessed, as per the hierarchy of scientific evidence, and where there was sufficient data, we calculated a range of standardised rates of leave incidence.

Results: Standardised leave rates in forensic settings reflect security level. There was little meaningful information on which to base calculation of rates for civil settings. The strongest evidence supports leave used for supervised discharge; other forms of leave lack an evidence base and decisions appear to be made on the basis of heuristic rules and unsupported assumptions. Clinical decision making about therapeutic leave cannot claim to be evidence-based.

Conclusion: Research is urgently needed to provide information about how leave is managed, the best ways to support leave, and what happens on leave.

Key Words: Mental Health, Systematic Reviews and Meta-analyses, Nurse roles, Nursing Assessment, Psychiatric Nursing

Summary Statement

2-3 points for each of 20-30 words in length

Why is this research or review needed?

- Managing leave is a key role of mental health nurses but there is little available guidance on how to manage the process
- Available research is heterogeneous in nature and has not previously been systematically identified, collated and synthesised

What are the key findings?

- Practice is currently based on scant evidence
- There is a lack of information about basic aspects such as how often leave is used and what patients do on leave

How should the findings be used to influence policy/practice/research/education?

- Basic research into the phenomenon of therapeutic leave is required urgently
- In the absence of evidence the decision to withhold or refuse leave must be strongly and clearly justified by clinicians

INTRODUCTION

'Leave' occurs when a mental health inpatient exits the hospital ward with the appropriate authorisation either alone, or accompanied by staff, family, or friends (Department of Health, 2007). Leave might be given for short periods, for example to go to the shops or spend a weekend at home, or for much longer periods (Care Quality Commission, 2010). Leave provides the clinical team with evidence to demonstrate that a patient is able to cope with the responsibility of managing their own safety, agitation levels and mental health symptomatology, for a pre-determined period of time (Department of Health, 2015). Whereas the responsible clinician has primary responsibility for granting leave for an individual and setting parameters, it is the responsibility of mental health nurses to facilitate and manage individual instances of leave within that framework using mental health risk assessment; by recording and evaluating leave; and by organising practical matters including transport and escorts (Solent NHS Trust, 2016; Central and North West London NHS Foundation Trust, 2015; Dorset HealthCare University NHS Foundation Trust, 2004).

‘To give leave’ is to allow ‘someone to make a choice or decision about something, or to make someone responsible for something’ (Cambridge Dictionary, 2017). From this perspective, leave is not merely a sanctioned activity but is potentially restorative and therapeutic, a view more congruent with recovery-oriented conceptualisations of mental health service delivery (Anthony, 1993) and notions of therapeutic risk-taking (Felton et al., 2017). It is reasonable to presume that discharge from hospital could be prolonged, should there be a delay in a patient being authorised ‘leave’ from the ward. Given the disadvantages associated with mental health in-patient status, i.e. separation from family / friends, decreased control over daily choices, it is justified to expect an evidence-based process for facilitating an intervention that could decrease admission length. Despite this, there has to date been no

systematic review of all the relevant empirical literature to synthesise knowledge about leave, how decisions are made and implemented, and whether they are conducted equitably across diverse groups. The intention of this paper is to address these questions.

Leave is a practice which occurs internationally; comparable principles are employed in the English-speaking world and Western Europe. Research has focused on *unauthorised* leave, its causes, antecedents, consequences, and prevention. Since it is associated with harm to self, to others, and reputational damage for mental health services (Stewart & Bowers, 2010) this is understandable. Adverse consequences of sanctioned leave are, however, not illusory; a fifth of all inpatient suicides in England occurred during authorised leave (Hunt et al., 2013). A focus solely on preventing unauthorised leave might be unwarranted, and could reflect risk-aversive or even coercive approaches that indicate interpersonal professional-patient mistrust (Robertson & Collinson, 2009).

Background

Civil and Forensic Leave

Civil leave applies to informal patients [individuals who voluntarily agree to a hospital admission] or those detained under civil sections of relevant mental health legislation. Decisions about the scope and length of civil leave fall to the responsible clinician, most commonly the consultant psychiatrist (Department of Health, 2007). There is currently no UK national guidance mandating a standardised approach to leave, but direction is provided by local NHS Trust policies. It is usually the responsibility of mental health nurses to facilitate individual leave episodes.

Forensic leave, where guidance is more explicit, is for mentally disordered offenders detained under criminal legislation. In England & Wales, the National Offender Management Service (2017) outlines legal provisions, specifies the types of leave available, and details

how clinicians can rescind leave. For patients subject to additional restrictions, the Secretary of State for Justice has ultimate responsibility for decisions about leave and the responsible clinician must provide a robust account of proposed leave, its context, purpose, potential risks, and proposed therapeutic benefits.

Supervised Discharge/ Transfer

Leave is commonly employed in forensic services to structure transitions between security levels (supervised transfer), or - in forensic and civil services - from hospital to the community (supervised discharge). While 'on leave' the patient can be returned to the previous placement or recalled to hospital in the event of treatment breakdown, relapse, or non-compliance. Such arrangements are common for patients who have a history of unsuccessful discharge or transition (Mohan et al., 2001).

THE REVIEW

Aims

Limited research has addressed therapeutic as opposed to unauthorised leave and the evidence-base has not been systematically evaluated. Therefore, we have identified, critically evaluated, and synthesised empirical evidence about therapeutic leave from mental health inpatient settings using systematic review methodology. The specific review question was 'for mental health inpatients is therapeutic leave in comparison with any other intervention or none associated with specific objective (e.g., clinical, economic) or subjective (e.g. experiences, perceptions) outcomes'. Secondary questions related to how clinicians make leave-related decisions, how they understand or experience therapeutic leave, and how patients, their friends and families experience leave and its associated processes.

Design

We employed a systematic review design using relevant components of the PRISMA statement (Liberati et al. 2009).

Search methods

We searched multiple electronic databases (CINAHL; Criminal Justice database; PsycARTICLES; Scopus; OpenGrey; Cochrane; GoogleScholar) for papers published from January 1967 to July 2017 using comprehensive search terms (see Table 2). Titles and abstracts were screened (author EMB); a proportion were screened (author: GLD) to assure reliable identification of includable papers. We made extensive efforts to source full text papers meeting inclusion criteria including via inter-library loan and, where possible, contacting authors directly. Full texts were examined by both authors for eligibility independently. Disagreements were resolved through discussion.

Inclusion criteria were English language, empirical studies that focused on therapeutic leave involving civil or forensic adult mental health inpatients. Studies which compared leave with any other intervention, treatment as usual, or no treatment were included. Studies describing any other relevant outcome or process (e.g., clinicians' perspectives or decision-making) were included. Participants in included studies were patients and/or staff; we included studies whose units of analysis were leave incidents. Non-English language studies and those whose focus was unauthorised leave were excluded.

Quality appraisal

Quantitative studies were categorised according to their standing on a hierarchy of research evidence (Ackley et al., 2008), and appraised against a 12-item quality checklist (University of York Centre for Reviews & Dissemination, 2008). Qualitative studies were assessed against a 14-item checklist (Tong et al., 2007), and mixed methods studies against a 16-item check list (O'Cathain et al., 2008). Since the number of includable studies was

limited, we decided not to exclude on the basis of study quality; however, we carefully considered the overall level of evidence and individual study quality in our analyses and subsequent recommendations.

Data abstraction

Papers were read repeatedly and information extracted systematically. Studies employed non-equivalent methods and measures and therefore meta-analysis was not possible.

Synthesis

Where information sufficed, we calculated standardised patient- and event-based rates for all types of leave described. These rates indicate, respectively, the number of patients who would have leave in any given month if the unit had 100 beds ([*n* patients with leave/ Total *N* patients] / [Study length months] x 100); and the number of leave events in any given month if the unit had 100 beds ([*N* leave events/ *N* beds] / [Study length months] x 100). Standardisation allows direct comparison across studies.

A qualitative synthesis approach was used to examine other study findings (Noblit & Hare, 1988); themes and concepts arising from different studies were compared, they were discussed by the authors to achieve agreement, and were incorporated into successive versions of the Results section until all major findings were accounted for.

RESULTS

The search strategy identified 28 papers published between 1968 and 2017 (see Figure 1) conducted in the UK (*k*=18), Australia (*k*=4), US (*k*=4), and the Netherlands (*k*=2). Fifteen were conducted in forensic settings and the remainder in civil settings. Subjects were patients (*k* = 17; *Mdn* = 149.8, range 5–534), mental health professionals (*k* = 6; *Mdn* = 65.3, range

10-193), and incidents (k = 11; *Mdn*=234, range 7-20,271). Psychosis was the most frequent psychiatric diagnosis; males were more commonly studied than females.

Study Quality

Twenty-two studies used quantitative methods; 10 represented level VI evidence (single descriptive or qualitative study), four level IV (well-designed case control study), and one each level III (case control trial, not randomised) and II (randomised control trial). Fourteen met half or more quality criteria (see supplementary Table S1). Common omissions were sample size justification, and measure validity and reliability information. Five used qualitative methods and one mixed methods; five met half or more quality criteria (see Supplementary Tables S2 and S3); these studies all reach level VI in the hierarchy of evidence. 92.8% of studies included in this review are categorised as level IV evidence or below.

Study synthesis

Terminology. Twelve papers provided seven distinct operational definitions of leave ranging from ground leave (limited to the grounds of the hospital) to supervised discharge ('discharge' to the community on leave and therefore subject to recall in the event of relapse) (see Table 1).

Leave Incidence. Thirteen studies provided sufficient information to calculate standardized leave rates (see Table 4). However, both patient- *and* event- based rates for any single study could not be calculated, and a wide range of non-comparable leave-types were described. As a result, little cross-study comparison was possible. The leave-based rate for all escorted and unescorted community and ground leave was calculated for four studies (*Mdn* = 575.8 events per 100 beds/month, range 204.5 to 782.8); leave-based rates from five studies for unescorted community leave (*Mdn* = 418.3, range 102.3 to 839.1); and two for unescorted

ground leave (*Mdn* = 130.0, range 68.1 to 191.9) were also calculated. The rate of unescorted community leave was lowest in the single study conducted in a civil setting; for total leave and total unescorted ground leave, rates were calculable only for studies of forensic patients. Rates of trial leave (i.e., supervised discharge) were very low (0.3 events per 100 beds/month) reflecting that an episode comprises a single extended event.

Initiating and amending leave. Leave initiation was the onus of the responsible clinician, with additional home secretary approval where required for forensic patients (Green & Baglioni, 1998; Lyall & Bartlett, 2010; Cronin-Stubbs et al., 1988; James et al., 1996; Mohan et al., 2001; Murphy et al., 2017). There was limited evidence about the involvement of non-medical professionals in decision-making. One direct-observation study conducted in multidisciplinary ward rounds (Lyall & Bartlett, 2010) reported that the responsible clinician actively involved the team; discussions of the patient's mental state were central to decision-making, and there was little disagreement. Other reported influences on leave-related decision–making included: admission length; trust with the patient; human factors; external resources; time restraints during the decision-making process, and public safety (Cronin-Stubbs et al., 1988; Green & Baglioni, 1998).

Studies in forensic units reported longer admission-to-first leave episode (Mean 8.4 months: Green & Baglioni, 1998) than those in civil settings. (Mean 2 weeks; Donner et al., 1990). Lyall and Bartlett (2010) reported the clinical team's tacit understanding that patients must serve a suitable period in hospital – an 'unofficial qualifying period' – in which groups are attended, a negative urine screen is achieved, and mental state is assessed as appropriate. However, they found that there was no obvious formula that reliably led to first leave episode-approval. Patients perceived their suitability for leave rested on similar factors (Rees & Waters, 2003).

Purpose of leave. Walker et al. (2013) reported shared staff-patient understanding that the ultimate purpose of leave was to encourage reintegration and rehearse daily living skills, but neither group identified episode-specific objectives. Similarly, Cronin-Stubbs (1988) found disagreement between professionals' understanding of the purpose of an individual patient's leave. In contrast, Lyall and Bartlett (2010) identified that leave was more likely to be granted where a specific purpose was identified.

Recording leave. Walker et al. (2013) reported inadequate preparation and planning prior to escorted leave episodes by nursing staff, and an absence of record-keeping about patient presentation and functioning during leave. Instead, nurses emphasised risk assessment prior to leave as the main task. Donner et al. (1990) found that, despite staff-patient agreement that leave facilitates community re-adjustment, actual documentation of the intended purpose of leave was poor.

Patients granted leave. Of 17 studies involving patient participants, 11 included a majority or exclusively male sample (*Mdn* = 82.7%, range 61-100%,); seven included a sample with a preponderant diagnosis of schizophrenia/psychosis (*Mdn* = 67.3%, range 38%-100%).

Risk assessment. Of 15 forensic studies, most described individualised violence or offending-related risk assessment for leave purposes (Hearn, 2013; Lyall & Bartlett, 2010; Walker, 2013; Scott et al., 2014; Claxton et al., 2006; Scott & Meehan., 2016; Hilterman et al., 2011; Tully et al., 2016). Additionally, half the civil studies addressed leave risk assessment (Atkinson et al., 2002b; Atkinson et al., 1997; Bolin et al., 1968; Sensky et al., 1991; Barre, 2003).

Hilterman et al.'s (2011) examination of the 17-item 'Leave Risk Assessment' (LRA) for serious reoffending by forensic inpatients on leave revealed large effect sizes for

prediction of general and serious offending for various subscales compared with the moderate effect sizes of the HCR-20 (Webster et al., 1997). The mean period from the start of leave to offending was 134 days; 26.9% of offenders re-offended on the first day of leave. *'Taking responsibility for their index offence'* was the only LRA item without significant predictive value; alcohol use was the most significant predictor for general offending during leave.

Clinical decision-making during leave. Walker et al, (2013) highlighted the complexity of clinical decision-making required of escorting nurses during leave. They explained how an escorting nurse failed to explore opportunities that could have facilitated the patient's goals, as he perceived them to be unrealistic. The authors suggest that an inflexible approach undermined recovery principles, disrespected patient autonomy, and was non-therapeutic; they concluded that flexibility and professional judgement are key to the success of escorted therapeutic leave.

Interventions for leave.

A 2-yr pilot study of remote electronic monitoring of patients on unescorted leave from a UK secure forensic unit via a Geo-Positioning Satellite device resulted in an increase in the amount of unaccompanied leave for patients but not a convincing economic case either for or against the technology (Hearn, 2010; Tully et al, 2016; Murphy et al., 2017). Prior to each leave episode the patient was fitted with a tamper-proof anklet tracking device. Once activated, nurses remotely monitored the patient's whereabouts in real time, and were alerted of any attempted device removal, or transgression of agreed geographical boundaries.

Leave Outcomes

Supervised discharge. Six studies examined extended leave as an alternative to full discharge to support treatment concordance (Atkinson et al. 1999; Atkinson et al. 2002; Atkinson et al. 2002b; Atkinson et al, 1997; Senksy et al. 1991; Milton, 1998). Atkinson et al

(1999) found one quarter of those completing 12-month extended leave of absence episodes were subsequently returned to hospital, while more than two thirds of those completing 6-month periods were returned. Milton (1998) reported that in England & Wales from 1987-1993 that 1.8% of all compulsory hospital admissions involved use of leave to provide a means of recalling the patient to hospital. Atkinson et al (2002b) found that of the 257 patients who reached the new maximum restriction for 'Leave of Absence' (fixed at 12 months), 9% were returned to hospital. The psychiatrist-reported reasons for recall included medication non-adherence (68%), requirement for in-patient assessment (37%), threat to self (30%), self-neglect (30%), and threat to others (18%), indicating that leave for supervised discharge was largely successful in terms of avoiding hospital recall. Further, in a randomised controlled trial, Burns et al (2013) found no difference in outcomes for patients placed on leave of absence compared to those managed using Community Treatment Orders.

Recovery. Proposed therapeutic leave outcomes included reduced admission length, transfer to voluntary status, rehabilitation, and re-integration into the community (Walker et al. 2013; Cronin-Stubbs, et al. 1988; James et al, 1996; Mohan et al. 2001; Hilterman et al. 2011; Donner et al, 1990; Burns et al. 2013. Lyall and Bartlett, 2010. Scott et al. 2014. Scott and Meehan, 2016). With the exception of Cronin-Stubbs et al (1988), who demonstrated that number of leave passes granted did not predict shorter admission length, no study actually addressed any of these outcomes as a direct result of leave.

Suicide. Leave provides patients with an opportunity to attempt suicide. The only study providing statistical data (Bolin, 1968) reported 177 suicides per 100,000 home leave episodes; deteriorating physical health, real, threatened or imagined loss, history of suicidal ideation or suicidal attempts, and short admission length increased risk.

Stress and mood. Based on assumptions that i) a depressive episode might be influenced by a stress response to changes in social support; and ii) the response might be mediated by, and/or reflected in, salivary cortisol levels, Sayal et al (2002) studied 23 inpatients diagnosed with a major depressive episode on the ward and during weekend leave. Change in cortisol levels was not statistically significant and the study hypothesis was unsupported. Smith (1977) investigated the mood state of patients taking weekend leave compared with similar patients not on leave. Irrespective of leave, all patients were less tense on Sunday than on the Friday. Leave-group participants showed no significant changes pre- or post-leave on any of five mood measures, but *did* experience positive mood state changes from Sunday to Tuesday. Control subjects experienced positive changes over the same period on three of the five measures. The researchers concluded that depression improves with crisis support, but differences between ward and home support can affect outcomes since crisis support may not be available for all patients on home leave.

Patients' and staffs' views and experience

Young (2011) explored clinicians' leave-related views on management of mental health patients in a forensic psychiatric unit who were detained with further restrictions imposed by the mental health unit at the UK Ministry of Justice. For these patients, initiation of and changes to the amount and conditions of, leave must be approved by the unit. There was a perceived disconnect of the MHU from local realities due to a reported lack of recognition that the nature of leave differs according to placement-geography and environment; subsequently, patients, who strongly rely on successful leave to demonstrate progress, may be unable to do so simply because the placement is unsuitable for supporting that leave, for example remote or inaccessible. Further, Young suggested a perceived disempowerment by the MHU of local clinicians and an insulation from the '*clinical fall out'*

(p.401) of their decisions; and that MHU caseworkers tended to overreact to patients' aggressive or angry response to a denial of leave leading to a vicious circle of further leave denial. Staff also expressed that patients need to be realistic about their applications for leave and take responsibility for maintaining their leave status.

A study of long-term, male forensic patients' quality of life Schel (2015) found subjects' self-ratings and case managers' proxy-ratings for the 2-item (α=.87) 'Leave' domain of the Forensic inpatient Quality of Life scale (Vorstenbosch et al., 2007) did not differ significantly; both groups rated patient satisfaction with leave-related care poorly, and it was the lowest ranked of the tool's 14 domains.

Walker et al (2013) reported that both staff and patients felt community day leave facilitated reintegration and provided an opportunity to practice daily living skills. However, neither group identified the specific objective of any single leave episode. Rees and Waters (2003) found that detained forensic patients believed leave prepared them for life outside hospital, relieved boredom, aided social network development, helped them cope with their current restricted situation, and provided enjoyment. A survey of nurses' and physicians' views about aspects of the treatment program that most successfully promoted discharge-readiness and community- adjustment revealed community leave to be the seventh most highly ranked of 26 alternatives (Cronin-Stubbs et al, 1988). Subsequent interviews revealed the ranking to be attributable to the perceived suitability of leave for testing the effectiveness of hospitalization, for promoting coping behaviours, easing the hospital-to- home transition, and maintaining social networks. Patient respondents identified the purposes of leave as testing out-of-hospital functioning, building relationships, and evaluating coping ability.

Atkinson et al's (2002) examination of patients' experiences of legislative changes to use of extended leave of absence as an alternative to discharge suggested that participants

neither understood the changes nor the implication that medication was compulsory under the new regime.

No study explored the views of carers and families of patients who have utilised leave; Barre (2003: P.35), however, reported that carers of patients in his study felt *'unsupported and uninformed during the leave process'*. In half of all cases, patient documentation demonstrated insufficient involvement with carers in leave decision-making.

DISCUSSION

Our systematic review confirms that leave occurs in inpatient mental health services internationally and that most patients and clinicians believe it offers therapeutic benefits. However, of only 28 relevant studies, seven examined leave in the context of now obsolete legislative changes relevant only to Scotland and to England & Wales. The included studies failed to comprehensively provide basic information about leave, its duration, what inpatients do during leave, or about any objective outcomes, ideal ways of introducing leave, indicators for leave termination, or staff training for facilitating therapeutic leave as opposed to preventing unauthorised leave. Limited evidence was available about the characteristics of patients using leave other than that, like the inpatient population in general, they are predominantly male and experiencing a psychotic illness (Health and Social Care Information Centre. 2015).

With rare exceptions the studies in which sufficient information was presented to determine standardised leave rates were conducted in forensic units. where unescorted community leave ranged from 3.6 to 27.6 (*Mdn*=5.1) episodes per 100 occupied bed days, equating to a median rate of three to four episodes of leave in total per week on a 10-bed unit. The wide variation reflects that those in higher security settings will have very limited community leave, and those in lower secure care preparing for discharge might have

significant amounts of leave. Unescorted ground leave rates in forensic settings ranged from 2.2 to 6.3 episodes per 100 occupied bed days (*Mdn*=4.3) or three episodes per week in total in a 10-bed unit. While the number of leave episodes that *should* occur will vary across patients, wards, circumstances, and time, this rate does seem very low, primarily suggesting that ground leave is under-recorded in studies. As a result, we are almost entirely ignorant of the scope or extent of its actual use. To our knowledge, this review is the first to present standardised leave rates. Future studies should report on rates of leave as part of routine practice. This would generate new data to facilitate exploration of relationships between leave and important variables including quality of life indicators, ward environment, or adverse incidents.

Patients and leave

It is an un-evidenced assumption that graduated exposure to leave is most beneficial and assists in the return of the patient to the community (Newman et al, 1988). From the available evidence, we cannot pinpoint how and what impact leave has upon discharge readiness, mental state, and quality of life. The strongest evidence relates to use of leave as a form of supervised discharge. Burns et al (2013) adequately demonstrated that use of leave legislation was as effective as a community treatment order for prevention of readmission. The simple lesson from this is that new restrictive practices are not necessarily justified nor required.

Research into quality of life in forensic psychiatric unit revealed lowest satisfaction of all by patients was with arrangements for leave (Schel et al., 2015), much lower than satisfaction with the social domain of care and lower even than satisfaction with the sexuality domain. Case managers' proxy ratings of leave-related satisfaction were concordant with patients' self-ratings whereas in other domains the former significantly over-estimated patient

satisfaction. A related antecedent study describing development of the Forensic Quality of Life tool (Vorstenbosch et al., 2014) confirmed that leave is a very distinct and important aspect of quality of life for forensic inpatients. Unfortunately, other quality of life studies conducted in forensic settings have not measured leave-related satisfaction in isolation, and this is an area requiring further exploration. Findings from studies beyond the scope of this review suggest leave is a high priority for patients in forensic psychiatric units (e.g., Parry-Crooke and Stafford, 2009) and this may explain Schel et al.'s (2015) findings.

The multidisciplinary team and leave

Length of stay in hospital (Rees and Waters, 2003) and, in forensic settings, severity of offending history (Green and Baglioni, 2004), and a period of concordance (Lyall and Bartlett, 2010) are considered important considerations for clinicians before initial leave authorisation. These seem reasonable heuristics on which to base decisions. Nevertheless, there is little supporting empirical evidence. Indications by clinicians and patients that leave is important and therapeutically beneficial (e.g., Cronin-Stubbs et al, 1988) are essentially anecdotal value judgements rather than indications of efficacy. Therefore, we suggest that the onus lies with health professionals to articulate and evidence why requested leave not be permitted rather than rely on un-evidenced assessments.

Studies reported the onus of leave initiation to be on the responsible clinician while other professionals' roles were unclear. Lyall and Barlett (2010) identified multi-disciplinary team meetings as the key forum for leave-related decision-making, reporting that responsible clinicians welcomed others' input. This is consistent with Stacey et al.'s (2015) finding that psychiatrists try to involve other professionals in decision-making processes but are conscious of their responsibility for definitive decisions including granting leave. In reality, factors including the idiosyncratic collective functioning of each multi-disciplinary team,

power struggles, individual confidence, and role-perspectives are likely to influence decisions.

We are unaware of any national standards or guidelines for measuring and recording leave progress and outcomes. Our experience suggests that, at team level, leave parameters are highly idiosyncratic reflecting the local environment, including the location of amenities such as shops or cafes. This is reflected in literature which recognises that documentation of leave is often simplistic, with little justification of decision-making (Kasmi and Brennan, 2015), and poor recording of its purpose or outcomes (Donner et al., 1990). Since successful leave episodes support future leave-authorisation (Lyall and Bartlett, 2010), documentation failure may well disadvantage the patient.

Leave and risk

Leave-related risk assessment instruments generally aim to assist professionals to understand the individual's risk of taking 'unauthorized leave' and thus were ineligible for inclusion in the review. Of tools not focusing on unauthorised leave, the Leave Risk Assessment (Hilterman et al., 2011) focused on general and serious recidivism *during* leave, finding it more accurate in prediction of those outcomes than the HCR-20 (Webster et al, 2009.). The Leave/Abscond Risk Assessment (Kasmi & Brennan, 2015; Hearn et al., 2012) has been developed but the tool constitutes little more than a checklist of actions to perform prior to and post leave rather than an attempt to inform a formulation about probability of leave having positive or negative consequences.

Bolin's (1968) was the only study to focus on patient suicide during inpatient leave, reporting a rate of 177 suicides per 100,000 leave episodes (or one suicide every 13.7 years on a 20-bed ward from which each patient has leave once per day). Other studies provide figures for

suicide on leave incidental to their primary objective (e.g., 39% of 222 suicides in England occurred during an episode of agreed leave); however, it is not known how many episodes of leave this occurred over. Patients on agreed leave who killed themselves were considerably less likely than matched living controls to be on agreed leave, and, patients who killed themselves were 13 times more likely than controls to be on unauthorized leave (Hunt et al., 2013). This suggests that there was some limited success in identifying 'at risk' patients since they were less likely than controls to be on leave at the time of suicide; but also that those with a determination to kill themselves might make concerted efforts to get away from the ward since they were much more likely to abscond than matched controls.

Implications for nursing practice

Nurses generally facilitate and co-ordinate individual leave episodes; given the delicate balance between therapeutic benefits and risks, their decisions require clinical justification (Lyall and Bartlett, 2010). Some opinion papers have claimed that nurses prepare patients for leave via clear instructions on how to manage whilst away from hospital (Newman et al, 1988); however this was not reflected in included studies. By facilitating and documenting leave, nurses can provide evidence about the patient's ability to cope with the responsibility of managing his or her own safety. There is currently no evidence available to indicate what, if any, impact nurses' leave-related decisions have upon a patient's recovery despite the potential practical, legal, and ethical implications (Hilterman et al, 2011).

Leave is not a recognised therapeutic nursing intervention (Bulechek et al, 2008), yet a systematic review to identify nursing interventions in inpatient psychiatry determined that exploring and reducing the rates of absconding *was* a nursing intervention (Frauenfelder et al, 2013). Likewise, nurses' perceptions of leave has not been privileged with a focal review, but this *has* been conducted in respect of nurses' understanding of risk assessment and

absconding (Grotto *et al*, 2014). From this, one may conclude that the nurses' role in leave is assumed largely to prevent absconding, an inherently defensive position in accord with staffs' principal understanding of leave success as risk avoidance (Walker et al, 2013). Other common nursing activities – including administration of pro re nata ('as required') medicines and de-escalation of aggression - have been subject to far greater empirical investigation. We conclude that leave and its management is long overdue for further examination.

Families/ carers and leave

Patients rely to varying extents on friends and family during their time on leave. However, carers' involvement in supporting a patients' leave is an unexplored topic; only one study (Barre, 2003) referred to carers, suggesting they receive insufficient involvement and support. This reflects studies outwith this review which suggest that carers more broadly perceive their knowledge of service users is often disregarded despite policy rhetoric (Stacey et al, 2015).

Future research

The only intervention to improve or increase leave identified in this review concerned Geo Positioning Satellite tracking of forensic patients on unescorted community leave (Hearn, 2013; Murphy et al, 2017; Tully et al, 2016). Preliminary results suggest the approach could help patients to progress through their in-patient stay at an accelerated rate due to the availability of a method to test patients with leave earlier in their admission with the technological safety net of Geo Positioning Satellite. This could potentially allow careful calibration of leave, tailored to the individual patient within the unique environment of their placement. The exponential increase in unescorted leave apparently resulting from this innovation (Tully et al., 2016) suggests it is highly acceptable to patients. Outside of forensic

services, it might be wise to trial strategies involving telephone support or SMS text messaging to support leave. In addition, we suggest that architecture in mental health facilities should be shaped to be leave-facilitative. Ahern et al. (2016) have evaluated an initially controversial new 'zoned' building design which required all patient and visitor ingress/egress to and from a 'public zone' to go through a single, manned 'portal'. A 'transition zone' (or 'galleria') provides a space in which inpatients, outpatients, and identified visitors can mix and in which clinical activities take place. Finally, the 'inpatient' zone is accessible only to inpatients but all wards are unlocked. Patients are assigned a level of 'therapeutic pass' (inpatient '1'; Transition '2'; Public '3'). Concerns that patients would find it stigmatising to leave using a public portal were largely dispelled by a mixed methods design study which found patient- and staff- reported benefits to outweigh risks and brought additional benefits including a sense of safety in the unit. While the innovation was reportedly costly, it suggests that building design which maximises therapeutic leave should be rigorously evaluated.

In studies of physical rehabilitation, research has examined how to provide information for service users and carers about their first therapeutic leave (Geets et al., 2015); and development of a tool to evaluate the usefulness of leave (Newman et al., 1988). Both might be usefully developed for use with mental health inpatients.

Limitations

The obvious limitation is the lack of relevant studies sourced despite our broad inclusion criteria. Further, the use of leave and its management are significantly different between forensic and civil settings. Finally, we excluded non-English language studies which could be a limitation.

CONCLUSION

Given the considerable disadvantages associated with mental health inpatient status including separation from family and friends and decreased control over daily choices, patients should expect a robust, systematic process with clear decision-making protocols to facilitate an intervention that could decrease admission length. In reality, very little is known about how decisions about leave are made and implemented, including whether such activities are conducted equitably across diverse patient groups.

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Figure 1: Study inclusion flow chart

Table 1: Included study details

Study	Setting	Study design	Sample	Definition of leave	Study results
Studies in community/ civil settings					
Atkinson et al., 1999.	UK; community	Case note review	534 patients	Leave of more than 6 months duration (supervised discharge)	Leave resulted in 30% of patients being discharged and 23% recalled to hospital. Leave use increased over time; leave used most for people perceived as a risk in the community.
Atkinson et al, 1997	UK; community	Survey	193 consultant general psychiatrists	Leave of 6+ and 12+ months duration (supervised discharge)	Vast majority use leave for supervised discharge. Most rejected limitations on its use. Over half thought guidelines were needed, but most experienced supported it least.
Atkinson et al. 2002a.	UK; community	Interviews.	64 patients (Male, 83%)	Leave up to a maximum of 12 months (supervised discharge)	Most patients affected by legislation change did not understand it or its implications.. All patients were in touch with 1+ professional. Difficult to ascertain if patients believed they had a current care plan.
Atkinson et al. 2002b.	UK; community	Survey.	266 patients	Leave up to a maximum of 12 months (supervised discharge)	Of 257 patients reaching the new maximum length of leave (12 months), 14% transferred to community care order; 5% to a guardianship; 30% re-admission. Limitation to leave legislation less problematic than anticipated. Other legislative measures used instead
Barre, 2003	UK; civil hospital	Case note review/audit	24 case notes.	Section 17 leave, extended leave of absence and weekend leave.	Care co-ordinators not receiving consistent communication about their patients; 50% of files indicated insufficient involvement with carers; one third of arrangements showed inadequate support for leave planning; insufficient monitoring of leave; lack of contingency plans. Staff: patient inconsistency in communication is a concern
Bolin et al. 1968.	UK; Community	Survey of official records	88 patients	Home leave	Suicide is a risk while people are on home leave.177 suicides per 100.000 episodes of leave. Previous threat of suicide, previous suicide attempt, recent loss, physical health, length of time out of hospital were significant risk factors.
Burns et al, 2013	UK; community	Randomised Controlled Trial. Community Treatment Order vs. supervised discharge	336 'revolving door' patients	'Section 17 leave of absence', as per the Mental Health Act of England & Wales (1983) and the amended 2007 Act.	Primary, secondary, or clinical outcomes of supervised discharge and Community Treatment Order groups did not differ. No evidence that Community Treatment Orders reduce readmission compared with supervised discharge
Cronin-Stubbs et al. 1988.	US; short term civil inpatient	Mixed methods: Chart review, interviews, survey	Chart review/ interviews:234/21 patients. Survey: 34 nurses, 15 physicians.	A 'therapeutic pass as an authorised, temporary leave of absence from the hospital for greater than 2-h periods'	Purpose of pass not documented in 50% cases. Evaluation of patient functioning away from the hospital cited as reason for pass. Most respondents believed passes were moderately effective in discharge preparation. Little agreement among patients, physicians and nurses about purpose or effectiveness of leave
Donner et al, 1990.	US; civil in-patient	Chart reviews/ interviews.	Chart review = 234 patients. Interviews; 34 nurses, 15 physicians; 21 patients. Most white, female	A 'therapeutic pass as an authorised, temporary leave of absence from the hospital for greater than 2-h periods'	More passes taken by patients on treatment orders. 47% of passes had no documented purpose. Most interviews indicated a leave pass is perceived as moderately effective in helping patients prepare for discharge. More leave passes for patients who had treatment ordered e.g., day hospital. Passes are an integral component of discharge planning and community adjustment
James et al, 1996.	UK; civil hospital	Retrospective case records review	67 patients. Schizophrenia	Section 17 leave	Trial leave was used to prevent patients remaining in restrictive care.
Milton, 1998	UK; Community	Case records review	490 applications of trial leave 1983-1993; 67 episodes of recall.	'Section 17 leave of absence', as per the Mental Health Act of England & Wales (1983) definition	Section 17 application reduced over the mid 1980's then increased. 60% of sections allowed to expire. Most recalls in first 3 months. Increased use from1987 reflects increased caution.
Sayal et al, 2002	UK; civil hospital	Pseudo-experimental	23 inpatients with major depression	'Weekend leave'	*M* Montgomery Asberg Depression Rating Scale score ward vs. home was 16.9 (S.D. 8.8, range 4-38) vs. 15.0 (S.D. 7.6, range 3-29). Depression improves with crisis support. Patients need support post leave.

Study	Setting	Study aim/ design	Sample	Definition	Incidence statistics and study results
Smith, 1976	US; civil hospital	Investigate pre- post-pass mood of patients	40 experimental participants.15 control participants	'Weekend Pass'	All subjects (both groups) were less tense on Sunday (after the weekend) than on the Friday. On 5 of the mood scales, experimental subjects showed no significant change pre- to post- pass. Control subjects experienced "positive" mood state changes over the weekend on three of the mood scales. Experimental subjects experienced "positive" mood state changes from Sunday to Tuesday on 4 of the mood scales. The Experimental subjects' and observers' ratings given on Tuesday were not in agreement on 4 of the mood scales. Patients competent to go on weekend pass typically return with mood states, not significantly different from their pre-pass levels. Comparable ward residents had decreased levels of depression
Sensky et al. 1991	UK; community	Retrospective case note comparison.	42 episodes of extended leave of absence	'Extended leave of absence' i.e. leave extended for a period more than 6 months duration.	A community treatment order giving psychiatrists the power to recall patients into hospital is expected to benefit a small group of patients with severe mental illness by improving their compliance as outpatients and reducing time in hospital. Without compulsory outpatient treatment, these patients are likely to fare badly in remaining in the community.
Studies in forensic/secure settings					
Claxton et al. 2006.	UK; Forensic, medium secure	Prospective descriptive survey	70,271 episodes of leave	'An escorted or unescorted outing in grounds or community'.	1994-2001: 14,642 episodes of escorted grounds leave; 40,642 episodes of unescorted GL; 6,071 episodes escorted community leave; 8,916 episodes unescorted community leave. One AWOL per 1,171 (0.09%).
Green and Baglioni, 1998.	Australia medium secure	Cohort study.	521 males (48.6% psychotic, 22.5% personality disorder)	Overnight conditional leave, overnight leave.	Overnight conditional leave granted to 126 male patients (20.1%) over 135 admissions. Half of reoffending occurred on leave. *M (SD)* leave: 311 (365) days. Homicide/violent offenders less likely to be granted leave. Serious offences associated with longer stay; patients more punished than treated.
Hearn, 2013.	UK; medium secure	Pilot study.	Episodes of leave 2009 and 2011	Section 17 leave.	%). In the first 2 years of use, the number of adverse leave incidents fell by 75%. The unit increased the amount of leave being granted after introduction of electronic monitoring. Electronic monitoring haa a positive impact on leave and safety.
Hilterman et al, 2011	Netherlands; secure hospital	Test properties of Leave Risk Assessment.	195 offending 117 non offending patients during leave	'A gradual process, through successive levels of increased freedom…. The first step is supervised leave in the community, followed by unsupervised leave, which can include up to six overnight stays outside the hospital'.	Tool total score correlates strongly with the HCR-20 total score. Tool has moderate predictive validity and incremental value over HCR-20.
Lyall and Bartlett, 2010.	UK; medium secure.	Qualitative. Observational/ethnographic.	Clinical team discussions	'Leave into the hospital grounds, and later into the community with and without escorting clinical staff'.	Leave commonly discussed. Unofficial 'trial period' before any leave granted, 'ritualistic' rather than evidence-based decisions. **Themes*: 1. Risk and humanity*:** Leave as beneficial/ no leave as risky for patient's mental state. ***2. Power and responsibility*:** If responsible clinician not present then decision not made; if present, request approved more than not.
Mohan et al. 2001.	UK; high security	Case note review	130 patients;	An 'indefinite/ time limited trial'.	Use of trial leave inreased over time. More used for patients with violent index offence. Noted shift in practice; but trial leave does not shorten length of stay
Murphy et al, 2017	UK; medium secure	Cost effectiveness	122 beds/ 175 patients.	Unescorted community leave	2010: 2,228 episodes of leave for 96 patients. 2011: 3113 episodes of leave for 121 patients. Electronic monitoring cost per patient (in 2011) £286. The hourly cost of escorting staff (for both 2010 and 2011) was £59. No significant difference between the average total costs per patient before and after the introduction of electronic monitoring
Rees & Waters, 2003	UK Secure hospital	How do patients understand system of gaining leave. Semi-structured interviews	5 patients (all male, all detained with restrictions).	Leave for patients under section 37/41.	No participants comprehensively knew their rights. Factors believed to affect leave: violent behaviour, breaking rules, absconding and mental ill health (all reduced). Attending occupational therapy, keeping rules (both increased). Most felt leave system was fair and that leave prepared them for life outside. Leave is important for patients; it helps by relieving boredom, providing enjoyment and something to look forward to.

Study	Setting	Study aim/ design	Sample	Definition	Incidence statistics and study results
Scott et al. 2014.	Australia; High secure	Audit.	77 incidents	'Ground leave' outside the secure fence of the hospital but within non-secure grounds	Over a decade: an estimated 5,200 episodes of escorted GL; 5,720 of unescorted GL;7,800 escorted off ground leave; 16,120 unescorted off ground leave. 33 leave breaches involving 12 patients.
Scott and Meehan, 2016.	Australia; Medium secure	Audit.	7 critical incidents over 12 years.	'Cautious, graduated leave from the hospital as a prelude to transition into the community'.	In a 70 bed unit, average number of episodes of day leave per week: Small number of critical incidents occurred in 17 out of 46,000 leave episodes: 2 patients re-offended and 1 self-harmed, 1 assaulted escort nurse and 4 patients attempted to abscond from escort nurse.
Schel et al, 2015.	Netherlands, High Secure	Between groups patients vs staff.	77 pairs: patient and their case manager.	Two items (one factor) on Forensic Quality of Life questionnaire	Patients and case managers both rated patients' satisfaction with leave as 'very dissatisfied'. Leave was the only domain in which patients and case managers had comparable scores. Leave is one of two domains (sexuality is the other) which patients are unsatisfied with
Walker et al. 2013.	Australia; Forensic	Qualitative study.	9 patients,7 nurses; 3 other staff	Community day leave	Staff and patients had similar overall understanding of leave's function to support reintegration and practice daily living skills. Little preparation prior to each leave. No process for staff-patient discussion about leave objectives. Leave provides sense of independence and provided opportunities to practice skills. Escorting staff focus on security/risk issues.
Tully et al, 2016	UK; medium secure	Geo Positioning Satellite tracking evaluation	Leave episodes from 120-bed unit	'Cmmunity leave, typically beginning with leave where the patient is accompanied by nursing staff and progressing to unescorted leave'.	Overall leave episodes increased following GPS introduction. Improved leave progression may reduce length of stay, speed recovery, reduce costs and enable patient safety .
Young, 2011	UK (England); forensic	Qualitative interviews.	14 Mental Health practitioners.	Section 17 leave for patients under section 37/41, and therapeutic leave.	Patients' response to denial of leave by Ministry of Justice i.e. anger, aggression can lead to repeated denial of leave by same. Ministry of Justice do not need to manage the consequences of a refusal, which can be significant if the patient doesn't understand it. Restricted patients rely on therapeutic leave to demonstrate progress, but have no control over it

Table 2: Example of search on CINAHL

Search term		Results
1	In-patient	1,395,316
2	Inpatient	90,981
3	Patient	1,395,316
4	Service-user	7,291
5	Service user	7291
6	Client	38,980
7	Healthcare consumer	953
8	1 OR 2 OR 3 OR 4 OR 5 OR 6 OR 7	1,451,001
9	Hospital	331,431
10	Ward	18,640
11	Institution	39,335
12	Health service*	219,920
13	Infirmary	844
14	State psychiatric institution	12
15	Asylum	1,379
16	Mental health service	40,287
17	9 OR 10 OR 11 OR 12 OR 13 OR 14 OR 15 OR 16	564,559
18	Mental	174,983
19	psychiat*	86,487
20	18 OR 19	222,915
21	17 AND 20	68,465
22	Escorted leave	1
23	Unescorted leave	2
24	Section 17 leave	2
25	Leave of absence	214
26	Authorised leave	1
27	Authorized leave	2
28	Approved leave	3
29	Home leave	259
30	Therapeutic pass*	15
31	Leave status	92
32	Extended leave	43
33	Overnight leave	5
34	Permission to leave	12
35	Community re-entry	111
36	Suspension of detention	5
37	Therapeutic leave	87
38	Leave restrictions	14
39	Occupational engagement	348
40	Time diary	371
41	“Therapeutic leave of absence”	1641
42	Community leave	72
43	Ground leave	1
44	In ground leave	36
45	Off ground leave	380
46	Accompanied leave	3
47	Unaccompanied leave	2
48	22 OR 23 OR 24 OR 25 OR 26 OR 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37 OR 38 OR 39 OR 40 OR 41 OR 42 OR 43 OR 44 OR 45 OR 46 OR 47	9,492
49	8 AND 21 AND 48	60

Table 3: Standardised leave rates

Study	Setting	Type of leave	*N* leave events	Study period (months)	*N* Beds	*N* Patients	*n* patients with leave	Event-based rate		Patient based rate	
								Leave events per 100 admissions per month	Leave events per 100 beds per month	Patients with leave per 100 admissions per month	Patients with leave per 100 beds per month
Scott et al 2014	Secure	Escorted Ground	5200	120	70	-	-	-	61.9	-	-
		Unescorted Ground	5720	120	70	-	-	-	68.1	-	-
		Escorted off Ground	7800	120	70	-	-	-	92.9	-	-
		Unescorted off Ground	16120	120	70	-	-	-	191.9	-	-
		Total leave episodes	34840	120	70	-	-	-	414.8	-	-
Claxton et al 2006	Secure	Escorted/ Unescorted Grounds/Community*	70271	96	358	-	-	-	204.5	-	-
Hearn 2013	Secure	Off grounds (2009)**	12285	12	122	-	-	-	839.1	-	-
Murphy et al 2017	Secure										
Jan -Mar 2010		Unescorted off Ground	2228	3	122	-	-	-	608.7	-	-
Jan -Mar 2011		Unescorted off Ground	3113	3	122	-	-	-	850.5	-	-
Both		Unescorted off Ground	5341	6	122	-	-	-	729.6	-	-
Scott and Meehan 2016	Secure	Escorted Ground	6240	144	70	-	-	-	61.9	-	-
		Escorted off Ground	6864	144	70	-	-	-	68.1	-	-
		Total escorted	13104	144	70	-	-	-	130.0	-	-
		Unescorted Ground	19344	144	70	-	-	-	191.9	-	-
		Unescorted off Ground	11856	144	70	-	-	-	414.8	-	-
		Total unescorted	31200	144	70	-	-	-	606.7	-	-
		Total	44304	144	70	-	-	-	736.7	-	-
Tully et al. (2016)	Secure	Escorted leave									
		2009/10	1944	4	120	-	-	-	405.0	-	-
		2010/11	1694	4	120	-	-	-	352.9	-	-
		2011/12	1612	4	120	-	-	-	335.8	-	-
		Unescorted leave									
		2009/10	759	4	120	-	-	-	158.1	-	-
		2010/11	2544	4	120	-	-	-	530.0	-	-
		2011/12	2720	4	120	-	-	-	566.7	-	-
		Total									
		2009/10	2703	4	120	-	-	-	563.1	-	-
		2010/11	4238	4	120	-	-	-	882.9	-	-
		2011/12	4332	4	120	-	-	-	902.5	-	-

Donner et al 1990	Civil	Community 'pass'	307	2	150	234	-	65.6	102.3	-	-
Cronin-Stubbs et al 1988	Civil	Therapeutic pass	-	2	150	234	91	-		19.4	30.3
Milton 1996	Community	Supervised discharge	-	-	-	15722	282	-	-	1.8	-
		Supervised discharge	-	-	-	1644	282	-	-	16.7	-
Sensky et al 1991	Community	ELOA	42	27a	-	-	35	4.4	-	-	-
Green and Baglioni 1998	Secure	Overnight conditional leave	-	72	73	512b	126	-	-	0.3	2.4
James et al 1996	Civil										-
Mohan et al 2001	Secure	S 17 trial leave 1984	2	12	-	29c	2	-	0.6	-	0.6

[a] based on mean length of stay; [b] male patients only; [c] patients discharged on s17 trial leave or unconditionally

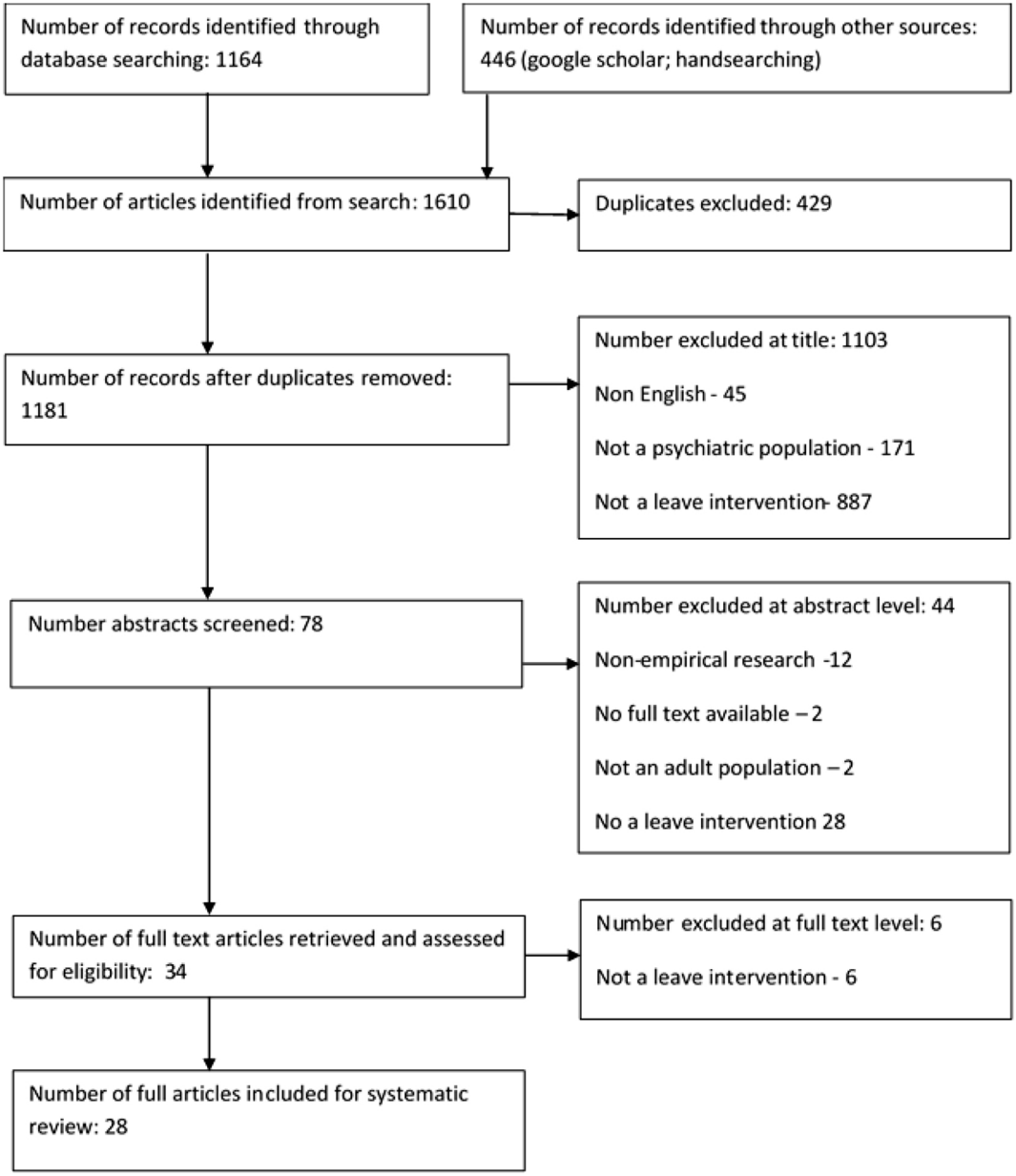
Number of records identified through database searching: 1164
Number of records identified through other sources: 446 (google scholar; handsearching)
Number of articles identified from search: 1610
Duplicates excluded: 429
Number of records after duplicates removed: 1181
Number excluded at title: 1103
Non English - 45
Not a psychiatric population - 171
Not a leave intervention- 887
Number abstracts screened: 78
Number excluded at abstract level: 44
Non-empirical research -12
No full text available – 2
Not an adult population – 2
No a leave intervention 28
Number of full text articles retrieved and assessed for eligibility: 34
Number excluded at full text level: 6
Not a leave intervention - 6
Number of full articles included for systematic review: 28

Figure 1